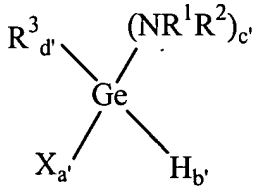
What is claimed is:

1. A method of depositing a film containing germanium on a substrate comprising the steps of:

a) conveying two or more germanium compounds in a gaseous phase to a deposition chamber containing the substrate, wherein a first germanium compound is a halogermanium compound of the formula $X^1_{4-a}GeR_a$, wherein a = 0-3, each X^1 is independently a halogen, and each R is independently chosen from H, alkyl, alkenyl, alkynyl, aryl, and NR^3R^4, wherein each R^3 and R^4 are independently chosen from H, alkyl, alkenyl, alkynyl and aryl, and wherein a second germanium compound has the formula



wherein each R^1 and R^2 are independently chosen from H, alkyl, alkenyl, alkynyl and aryl; each R^3 is independently chosen from alkyl, alkenyl, alkynyl and aryl; X is halogen; a' = 0-4; b' = 0-4; c' = 0-3; d' = 0-4 and a' + b' + c' + d' = 4; provided that a' + b' $\leq$ 3 when X^1 = Cl, R = H, and X = Cl;

b) decomposing the two or more germanium compounds in the deposition chamber; and

c) depositing the film comprising germanium on the substrate.

2. The method of claim 1 wherein the two or more germanium compounds are provided from a single vapor delivery device.

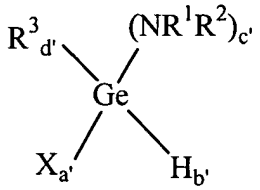
3. The method of claim 1 wherein the first germanium compound is provided from a first vapor delivery device and the second germanium compound is provided from a second vapor delivery device.

4. The method of claim 3 wherein the first germanium compound is chosen from germanium tetrachloride and germanium tetrabromide.

5. The method of claim 1 wherein c' = 1-3.

6. The method of claim 1 wherein a' = c' = 0, b' = 1-2 and d' = 2-3.

7. A vapor delivery device comprising a vessel having an elongated cylindrical shaped portion having an inner surface having a cross-section, a top closure portion and a bottom closure portion, the top closure portion having an inlet opening for the introduction of a carrier gas and an outlet opening, the elongated cylindrical shaped portion having a chamber containing two or more germanium compounds; the inlet opening being in fluid communication with the chamber and the chamber being in fluid communication with the outlet opening; wherein a first germanium compound is a halogermanium compound of the formula $X^1_{4-a}GeR_a$, wherein a = 0-3, each X^1 is independently a halogen, and each R is independently chosen from H, alkyl, alkenyl, alkynyl, aryl, and NR^3R^4, wherein each R^3 and R^4 are independently chosen from H, alkyl, alkenyl, alkynyl and aryl, and wherein a second germanium compound has the formula



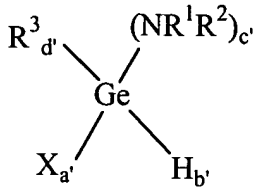
wherein each R^1 and R^2 are independently chosen from H, alkyl, alkenyl, alkynyl and aryl; each R^3 is independently chosen from alkyl, alkenyl, alkynyl and aryl; X is halogen; a' = 0-4; b' = 0-4; c' = 0-3; d' = 0-4 and a' + b' + c' + d' = 4; provided that a' + b' $\leq$ 3 when X^1 = Cl, R = H, and X = Cl.

8. The delivery device of claim 7 wherein c' = 1-3.

9. The delivery device of claim 7 wherein a' = c' = 0, b' = 1-2 and d' = 2-3.

10. An apparatus for vapor deposition of metal films comprising the vapor delivery device of claim 7.

11. An apparatus comprising a first vapor delivery device comprising a first germanium compound and a second vapor delivery device comprising a second germanium compound, the first and second vapor delivery devices capable of providing the first and second germanium compounds in the vapor phase to a deposition chamber, wherein the first germanium compound is a halogermanium compound of the formula $X^1_{4-a}GeR_a$, wherein a = 0-3, each X^1 is independently a halogen, and each R is independently chosen from H, alkyl, alkenyl, alkynyl, aryl, and NR^3R^4, wherein each R^3 and R^4 are independently chosen from H, alkyl, alkenyl, alkynyl and aryl, and wherein the second germanium compound has the formula



wherein each R^1 and R^2 are independently chosen from H, alkyl, alkenyl, alkynyl and aryl; each R^3 is independently chosen from alkyl, alkenyl, alkynyl and aryl; X is halogen; a' = 0-4; b' = 0-4; c' = 0-3; d' = 0-4 and a' + b' + c' + d' = 4; provided that a' + b' $\leq$ 3 when X^1 = Cl, R = H, and X = Cl.